

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055970

Luminaire Tested: S124R3DR-S1020D930-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055970
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S1020D930-X4F0-XX-UDD-FLL-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

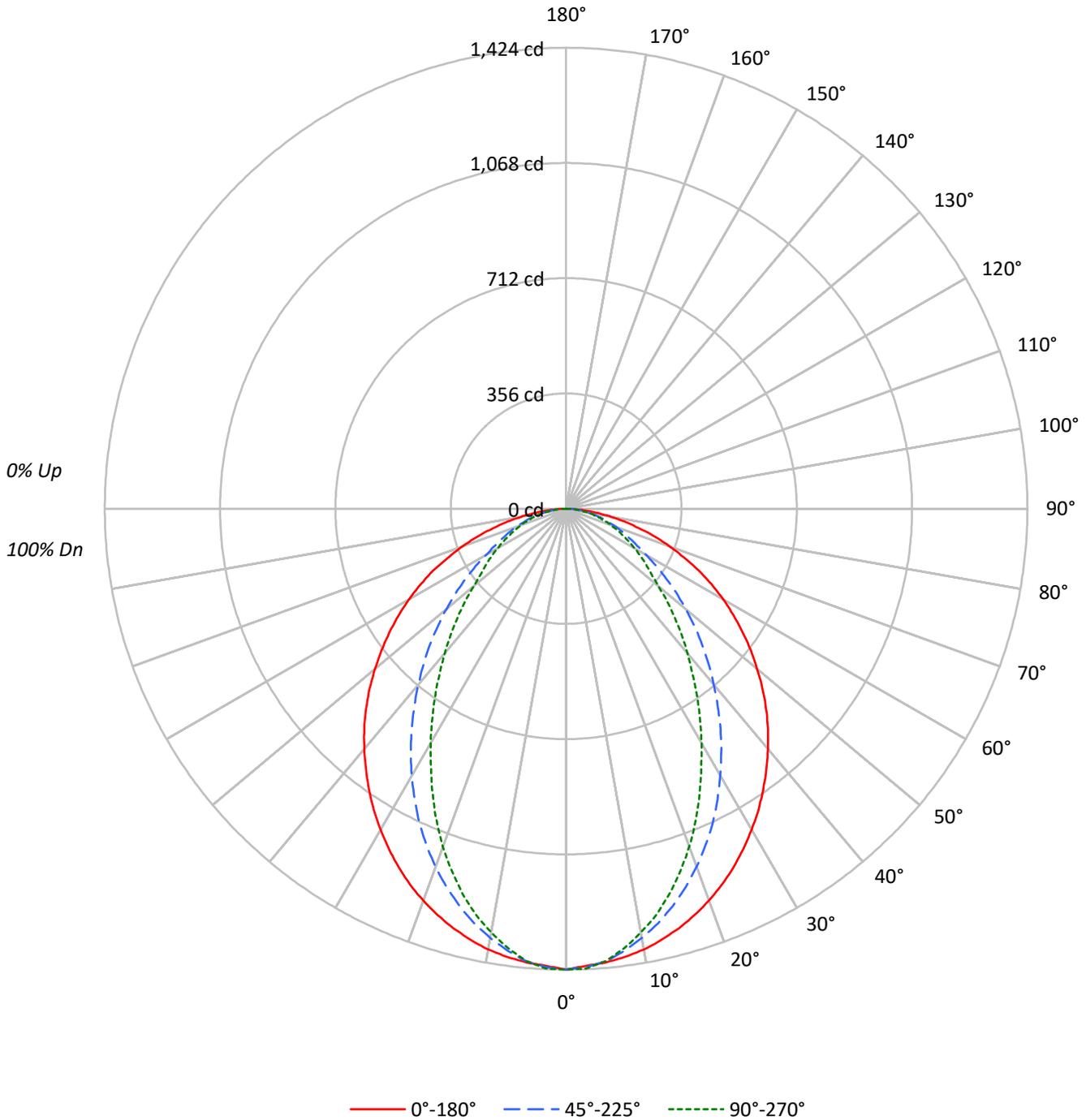
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2836.0 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86			86	
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73			73	
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63			63	
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55			55	
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49			49	
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43			43	
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39			39	
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35			35	
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32			32	
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29			29	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12588	12588	12588
5°	12488	12460	12451
10°	12416	12087	11936
15°	12285	11633	11278
20°	12125	11080	10459
25°	11928	10446	9506
30°	11692	9723	8536
35°	11444	8967	7600
40°	11185	8186	6723
45°	10912	7428	5908
50°	10577	6628	5102
55°	10255	5830	4635
60°	9894	5002	4299
65°	9448	4538	4010
70°	8776	4198	3792
75°	7946	3867	3580
80°	6935	3574	3360
85°	5316	3297	3084

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10912 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.6	4.7
10°-20°	359.6	12.7
20°-30°	497.9	17.6
30°-40°	534.4	18.8
40°-50°	486.0	17.1
50°-60°	382.7	13.5
60°-70°	261.9	9.2
70°-80°	141.0	5.0
80°-90°	39.9	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	990.0	34.9
0°-40°	1524.4	53.8
0°-60°	2393.1	84.4
0°-90°	2836.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2836.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1424	1424	1424	1424	1424	
5°	1407	1423	1404	1397	1403	134
15°	1342	1328	1271	1236	1232	378
25°	1223	1172	1071	993	974	563
35°	1060	978	831	730	704	663
45°	873	762	594	491	472	673
55°	665	538	378	305	301	595
65°	452	323	217	193	192	446
75°	233	141	113	104	105	248
85°	52	36	32	30	30	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1423.8	1423.8	1423.8	1423.8	1423.8
2.5°	1413.4	1430.1	1417.6	1419.7	1421.7
5°	1407.1	1422.8	1403.9	1396.6	1402.9
7.5°	1396.6	1407.1	1377.7	1364.1	1370.4
10°	1383.0	1385.1	1346.3	1326.4	1329.5
12.5°	1364.1	1358.9	1311.7	1283.4	1285.5
15°	1342.1	1327.5	1270.9	1236.3	1232.1
17.5°	1317.0	1292.9	1225.8	1181.8	1173.4
20°	1288.7	1256.2	1177.6	1121.1	1111.6
22.5°	1257.3	1215.3	1125.2	1058.2	1044.6
25°	1222.7	1172.4	1070.8	993.2	974.4
27.5°	1185.0	1126.3	1012.1	927.2	903.1
30°	1145.2	1078.1	952.4	861.2	836.1
32.5°	1104.3	1028.9	891.6	795.2	769.0
35°	1060.3	977.5	830.8	730.3	704.1
37.5°	1015.2	924.1	769.0	667.4	640.2
40°	969.1	870.6	709.3	604.5	582.5
42.5°	922.0	816.2	650.6	545.9	526.0
45°	872.7	761.7	594.1	491.4	472.5
47.5°	822.5	706.2	536.4	440.0	422.2
50°	769.0	650.6	481.9	389.7	370.9
52.5°	717.7	594.1	429.6	340.5	331.1
55°	665.3	538.5	378.2	304.9	300.7
57.5°	612.9	483.0	331.1	276.6	272.4
60°	559.5	428.5	282.9	247.3	243.1
62.5°	506.0	375.1	247.3	219.0	216.9
65°	451.6	322.7	216.9	192.8	191.7
67.5°	393.9	272.4	189.6	169.7	168.7
70°	339.5	222.1	162.4	146.7	146.7
72.5°	288.1	176.0	137.3	124.7	124.7
75°	232.6	141.4	113.2	103.7	104.8
77.5°	183.3	111.1	91.2	84.9	84.9
80°	136.2	82.8	70.2	65.0	66.0
82.5°	92.2	57.6	50.3	47.1	47.1
85°	52.4	35.6	32.5	30.4	30.4
87.5°	18.9	16.8	15.7	13.6	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)